

**REMARKS**

**Status of Claims**

Claims 1-9 are pending, of which claims 1-6 and 8-9 are independent.

Claims 1-6 and 8-9 have been amended to clarify the claimed subject matter. No new matter has been entered.

**Rejection under 35 U.S.C. § 102**

Claims 1-9 were rejected under 35 U.S.C. § 102(b) as being anticipated by Yamaguchi Seiji (JP 06-062438).<sup>1</sup> Applicants respectfully traverse this rejection for at least the following reasons. A certified English translation of paragraphs [0048]-[0056] of Yamaguchi describing operation of the stereoscopic image observation system is submitted herewith for the Examiner's information.

Regarding claims 1-4, the Examiner asserts that Yamaguchi discloses a means for detecting information indicating stereoscopic effect intensity added to a stereoscopic image to be displayed. Applicants respectfully note that the Examiner misunderstands the language "stereoscopic effect intensity." The Examiner asserts that paragraphs [0015] and [0018] of Yamaguchi discloses "intensity." Paragraph [0015] describes that a HMD (head mount display) 6 displaying an endoscope image as well as monitor 4a, 4b are connected to video processor 3, and this MHD is attached to a face of the operator as a monitor on face, thereby the operator can observe the endoscope image as a three dimensional stereoscopic image. Paragraph [0016] and Fig. 2 describe that stereoscope 2 has CCDs 7a, 7b for left and right at the end portion of the insertion portion, thereby the stereoscope takes a picture of two images of the object under test.

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<sup>1</sup> Yamaguchi, an English-language machine translation, was submitted to the PTO with the Information Disclosure Statement dated June 9, 2005.

CCDs 7a and 7b are driven by a driving signal from video processor 3, and the output signal is amplified by pre-amplifiers 8a, 8b and sent to video processor 3. According to paragraph [0018], control unit 11 of the insertion section end portion of endoscope equips freeze switch 12 for obtaining a still image, magnification change switch 13 for changing a normal image, and an actual size image and a switch for changing a view field between an endoscope image and a HMD image.

Applicants submit that Yamaguchi discloses that an intensity of a video signal is amplified, but fails to disclose “stereoscopic effect intensity” which indicates a level of stereoscopic effect.

As such, Yamaguchi fails to disclose “a detecting portion for detecting **information indicating stereoscopic effect intensity** added to a stereoscopic image to be displayed” as recited by claims 1 and 2, and “a determining portion for determining **stereoscopic effect intensity** of a stereoscopic image to be displayed” as recited by claims 3 and 4.

Regarding claims 5 and 6, Applicants respectfully submit that Yamaguchi fails to disclose “requiring an input” as recited by claims 5 and 6, because in Yamaguchi, an operator simply changes the magnification when the operator requires. The system in Yamaguchi does not require the operator’s an input indicating whether or not to allow the stereoscopic image having the original stereoscopic effect as recited by claims 5 and 6. Further, Yamaguchi fails to disclose a display for displaying a stereoscopic image to be displayed by rendering a size smaller than its original-size **based on stereoscopic effect intensity of the stereoscopic image**, as recited by amended claims 5 and 6.

Regarding claim 7, Applicants respectfully submit that Yamaguchi fails to disclose displaying any messages on the head mount display (HMD). Paragraph [0024] of Yamaguchi

cited by the Examiner discloses a synthetic processing of image signals, but fails to disclose displaying a warning on a screen as recited by claim 7. Paragraph [0024] of Yamaguchi describes as follows: Video-signal synchronizer 22 performs processing for displaying the image acquired from stereoscope 2 and the images acquired from CCDs 16a, 16b for HMD 6. For example, a compositing process is performed so that either the endoscope image or the front visual field image of the HMD may be chosen and displayed. Alternatively, zooming of a picture is performed based on the distance information acquired by ultrasonic distance detecting element 23. Further, various processes, such as a compositing process for displaying video and a still picture, are performed. The video signal on which the processes are performed is outputted to HMD 6 via the HMD image output part 27.

Accordingly, it is apparent that no message is displayed on the HMD in Yamaguchi.

Regarding claims 8 and 9, similar to claims 5 and 6, Yamaguchi fails to disclose “requiring an input” and “display for displaying a stereoscopic image to be displayed by rendering a size smaller than its original-size based on stereoscopic effect intensity of the stereoscopic image,” as recited by claims 8 and 9. Further, Yamaguchi fails to disclose “transmitting **via a network** a stereoscopic image” as recited by claims 8 and 9.

As such, it is clear that since Yamaguchi fails to disclose the above discussed limitations of claims 1-9, Yamaguchi does not anticipate claims 1-9. Thus, Applicants respectfully request that the Examiner withdraw the rejection of claims 1-9 because it is not legally viable.

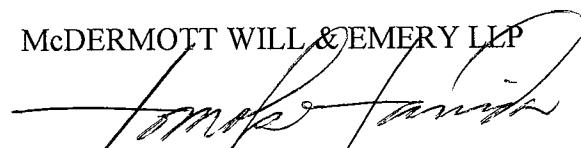
**CONCLUSION**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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VERIFICATION

I, Ryoko Kubo, c/o Intellectual Property H.Q., SANYO Electric, Co., Ltd., 5-5, Keihan-hondori 2-chome, Moriguchi City, Osaka 570-8677, Japan, declare that I know well both the Japanese and English languages, and certify that to the best of my knowledge and belief the English-language translation attached hereto is a true and correct translation of paragraphs [0048] to [0056] of Yamaguchi (JP 06-062438).

Ryoko Kubo  
Ryoko Kubo

Dated: Feb. 3. 2009

*English Translation of paragraphs [0048]-[0056] of Yamaguchi (Japanese Patent Application Publication JP 06-062438).*

[0048] Next, an operation of the embodiment is explained. When observing the object under test, the insertion portion of the stereoscope 2 is inserted into the object under test 10, and the image of the object 10 is taken by CCDs 7a and 7b. The imaging signals acquired by the CCDs 7a and 7b are inputted into the endoscope video signal processing section 20 via the connector 19 and processed to become video signals which can be displayed on monitors. And the signals are outputted to the monitors 4a and 4b via the monitor image outputting part 21, and the endoscope images are displayed on the monitors 4a and 4b, and the signals are also inputted into the video-signal synchronizer 22. The output image signal of the video-signal synchronizer 22 is outputted to HMD 6 via the HMD image output part 27, and endoscope images are displayed on the liquid crystal displays 15a and 15b of the HMD 6. The operator can get the stereoscopic image of the object under test 10 by observing liquid crystal displays 15a and 15b with attaching the HMD 6.

[0049] On the other hand, in the HMD6, the visual field image in front of the HMD 6 (i.e., front of the operator's face) is taken by the CCDs 16a and 16b. The imaging signals acquired by the CCDs 16a and 16b are inputted into the HMD video signal processing section 26 via the connector 25, and after signal processing, are inputted into the video-signal synchronizer 22. In the video-signal synchronizer 22, the endoscope picture signals or an HMD picture signals are chosen and are outputted to the HMD 6.

[0050] That is, according to this embodiment, it is possible to selectively display one of the endoscope images acquired with the stereoscope 2 and the HMD front visual field image acquired by CCDs 16a and 16b of the HMD 6 on the liquid crystal display monitors 15a and 15b of the HMD 6.

[0051] Therefore, the operator observes in stereoscopic the endoscope image while equipping the HMD 6, or the operator makes the HMD image once be displayed on the HMD 6 when performing various operations using treatment instruments. By this, the operator can

acquire a view as if the HMD6 is removed, can hold the treatment instruments etc. in this condition, and can operate inserting into an endoscope etc. easily.

[0052] And, when the tip of the treatment instrument was inserted in the endoscope and the treatment instrument could be inserted into the endoscope without being observed, the endoscope image is again displayed on the HMD 6.

[0053] Thereby, the operator can acquire distance sense for the positional relationship between the object under test and the tip of the treatment instrument as a three-dimensional image. Therefore, the operator can bring the tip of the treatment instrument close to the object under test more quickly, and can operate measures.

[0054] Thus, the operability of endoscopic diagnosis can be improved.

[0055] In this example, by measuring the distance between the object under test and the tip of the endoscope using ultrasonic wave, enlarging/shrinking of the picture is controlled by the enlarging/shrinking circuits 36a and 36b so that the object under test is displayed in the actual size. Therefore, it has an effect that the operator can more sensuously know the distance between the treatment instrument and the object under test based on the three-dimensional image displayed on the HMD 6 in the actual size.

[0056] The actual size displaying is not always performed, and it has a function to switch so that it can be used only when required. Therefore, when the operator feels discomfort when only observing the actual size displaying, a picture of a predetermined size (a picture that the object under test is displayed in the distance to some extent so that the operator may not feel discomfort) can be displayed.